AMATEUR CINE WORLD

JUNE—AUGUST 1942

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THE FILM EDITOR SPEAKS

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AMATEUR CINE WORLD

Incorporating "Miniature Camera World"

SUMMER
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THE ONLY JOURNAL SOLELY DEVOTED TO SUBSTANDARD CINEMATOGRAPHY

AMATEUR CINE WORLD is published quarterly from 324, *Gray's Inn Road, London, W.C.*1

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GORDON S. MALTHOUSE, *Editor*

Learning From Mistakes

IN this issue Mr. Ernest Lindgren, Curator of the National Film Library, describes the making of an unusual composite film, "Film and Reality." It is a fusion of fifty-eight extracts designed to illustrate the development of the realist film (that is, the news reel, documentary and certain forms taken by the theatrical picture) from the earliest days of the cinema to the beginning of the war.

Apart from its obvious value to the student, there are two notable things about it which will commend themselves to the amateur. The specialists concerned in its production could devote only their leisure time to it—leisure which was greatly curtailed by the war ; and it is believed to be the first film of its kind to have been assembled for an entirely serious purpose : the purpose of film study and appreciation.

Now although there is said to be no merit in novelty, as such, it is certainly a quality which the amateur should cultivate, for freshness and newness is of the very stuff of amateur films. Therein lie most of their appeal. "Film and Reality" represents a new idea. Further, it was made as all amateur films are made : in the producer's spare time. If only for these reasons, therefore, Mr. Lindgren's suggestion that amateurs might well undertake a similar film expressly to show cardinal points of cine technique, warrants careful consideration.

We ourselves have a close interest in the matter, because shortly before the outbreak of the war, A.C.W. put forward an almost identical scheme to the trade. We have always thought it to be a rather absurd anomaly that instruction in the making of *pictures* should be given almost exclusively by *words*. We have had films innumerable on the making of this and that article, on the carrying out of this and that process, but never a film on the making of films.

As a commercial venture it would, of course, be a hopeless proposition from the point of view of Hollywood and Elstree. Moviedom could not be expected to countenance a virtual exposé of its methods and stock-in-trade. The cinema is built up on romance and illusion ; show the struts behind the scenery, and you shatter them.

But to the sub-standard movement this argument does not apply. Every amateur is necessarily interested in the creation of that illusion ; he is interested in learning how to perfect it. Productions such as "Film and Reality" show him examples of effective technique. But he has to take as his tutor the practised artist who shows him only the best, presented before him as a *fait accompli* which he must analyse and dissect for himself.

A film on films, made expressly for the *maker* of films, as distinct from the student of cinema, would also show the worst. It would show the raw material and methods of assembly of that material—the good and the bad. It would show mistakes and show how these mistakes may be corrected or avoided. There is, indeed, material enough here for a film of prodigious length : a film which could be produced and exhibited in numerous self-contained parts. One section, for instance, might deal with bad and good exposure. Many amateurs fail to cut out badly exposed shots simply because they lack a standard of comparison which will enable them to determine what are the permissible limits of inaccurate exposure. So our instructional film might well contain under and over exposed shots, shots imperfectly matched in density and so on, followed by shots of precisely the same subjects, but correctly exposed. And this sequence would have to be prefaced by a sub-title giving the optimum size of screen and minimum power of lamp by which the correct exposure can be rendered on the screen.

Such a film might contain a heterogenous collection of holiday shots, strung together haphazardly, followed by a sequence showing these same shots in their most effective order. This again would be followed by yet another

(*Continued on page* 251)

THE AUTUMN ISSUE OF "AMATEUR CINE WORLD" WILL BE ON SALE SEPT. 1

The Film Editor Speaks

A short while ago a reader wrote to us to ask if we had heard the lecture on Film Editing read to the British Kinematograph Society by Mr. Sidney Coles. Our correspondent thought that it would have done "every amateur good" to have heard it. We had; and we thought so, too. So here is the essence of it, reprinted by kind permission of the Editor of the B. K. S. Journal.

OF the specialised crafts essential to the making of films, editing is probably the latest to develop. The reason for this is to be found in the history of the film. The earliest films were merely 50-foot records of actuality —the completed film was the print made from the entire length of the exposed negative without a cut.

Cameras and magazines were gradually adapted to carry a longer continuous length of negative, but the matter photographed continued to be continuous in one set-up. The length of film subjects began to outstrip the lengths of continuous negative manufactured. The action of the film would be stopped when the first roll of negative ran out and the actors immobilised until a second roll was loaded and shooting could be resumed.

At some time in the pre-history of kinematography, some 40 or 50 years ago, one day it happened that between finishing one roll of film and starting the next, the camera position was shifted, and by accident the camera angle had been born. From this point the change of angle began to be consciously exploited, but it was some time before the conception of editing in relation to it was worked out. For example, some daring spirit in the early part of the century tried out the reverse angle, purely in camera terms, not in terms of editing. In an early silent version of "Macbeth," Macduff's soldiers are shown storming the castle of Dunsinane both from outside the castle and from inside the battlements. But because the conception of editing was not yet born, what actually happened was as follows :

In the first shot, shooting towards the battlements from *outside* the castle, the audience saw the soldiers mount the walls and disappear to the last man over the battlements. The film then cut to the reverse angle, shooting towards the battlements from *inside* the castle walls. Over the battlements came the first of the soldiers again, followed by the remainder of them. The action of the second shot, in fact, was a complete repetition of the first, which seems ludicrous to us to-day. Yet it was a great step forward. It was one facet of the growing realisation that the movie could disregard the physical continuity of the fixed viewpoint, as accepted either in actuality or in the conventions of the Stage.

It was countless such experiments and accidental variations, allied to technical improvements in stock, lenses, etc., which produced the first great film-maker, D. W. Griffith, who is said to be responsible, among other things, for the close-up, the fade-in and the fade-out, the early use of a moving camera, etc. But his greatest contribution to the development of the movie was the conception of editing, which was basic to all his other innovations. This was born of the necessity of creating suspense (the standard "Will he get there in time" theme)—as in "Way Down East"—or of the necessity to carry four narratives through the same film by cross-reference, as in "Intolerance." It was, in fact, the realisation that the movie had one unique characteristic : this was the fact that it could leap from place to place in space, and from point to point in time. It could select and re-arrange space and time quite arbitrarily to suit its dramatic purposes. It could in fact create its own space and time.

D. W. Griffith was the first notable exponent of this discovery. Pudovkin, the Russian director, was the first to describe its working theoretically. Take, he said, a shot of a man looking at something outside the frame of the picture. Cross-cut this with three other shots in turn : first, with a shot of a sleeping child ; second, with a shot of a dead woman ; third, with a shot of a loaf of bread on a table. In each case the shot of the man is the same, physically. Yet the moment it is cut together with another shot, the significance of the man's look changes : it displays paternal affection, grief, or hunger.

The truth of the analysis is obvious every time we cut an insert into a picture, as with the calendar or the clock above ; every time we cut an establishing shot of, shall we say, the American coastline into a sequence shot at Denham ; every time, indeed, we take a back-projection scene, with a plate shot in Cornwall and the actors playing before it at Shepherd's Bush. In each case, the movie is creating its own space and time. And except with back-projection, this creation is finally and fundamentally through the putting of scenes together in a significant order, that is, Editing. And even

back-projection, is, as it were, an extension of editing.

Realisation of this is important in relation to the economics of the industry. Consider, for example, the picture that Ben Hecht and Charles Macarthur, those *enfants terribles* of the American film, made some years ago—" Crime Without Passion." Lee Garmes (who photographed it) has described how the understanding of the principle of the creation of time and space was integral to the shooting of more than one sequence in that film.

The most outstanding example he gives is the courtroom sequence at the beginning of the picture. For this, no complete courtroom set was ever constructed. Instead, shots and set-ups were planned in relation to each other, as elements for editing, in such a way that when they were all *cut* together there existed on the screen a courtroom that had never existed in reality. That, apart from the artistic result achieved, meant an enormous saving in cost.

I regard the editing of the British National picture " Gaslight " as the best I have done. Yet in practice it presented not a tenth of the difficulties I have had with many a worse picture. For example, of all the set-ups photographed for the film, only four were not actually used in the completed film as shown to the public. The remaining 99.9 per cent. of the material was a delight to work with, being susceptible of the utmost subtlety in cutting.

This was only because the film had been made with the requisite consideration of the demands of editing, and because my friend Thorold Dickinson, who directed, had conceived broadly in his mind the final shape of the picture. Dickinson, of course, was an experienced editor before turning director. I am glad to acknowledge here how much I have learned from his teaching and practice.

At this point it is desirable to make a distinction between editing and cutting. The latter is the more or less straight up-and-down assembly of the photographed material in the approximate order indicated by the script. It involves merely taking two scenes, A and B, that are intended to follow each other, and making an adequate transition, or cut, between them. This needs knowledge and experience, it is true, but compared with editing in the special sense it is a routine and mechanical matter. With a straightforward sequence, provided that there are no glaring errors in continuity to contend with, this may be a matter of half-an-hour's work with Moviola and scissors. It is only after this rough cut has been joined and seen on the screen that the real work of the editor begins.

Having seen—and pondered—this simple or rough cut, the editor proceeds through certain stages towards the final completed film. This statement needs qualification. First it represents broadly my own usual but not invariable practice. Secondly, the stages are not rigid, do not follow each other automatically. They are a convenient way of representing operations that have at some point or other to be undertaken.

1. *Complexity.* By this I mean the introduction into the simple narrative of material not so far used. This includes close-ups of individual characters, the enriching of straightforward dialogue scenes by reaction shots, the introduction of establishing shots, the cutting in of inserts if available (it is one of my special grumbles that inserts are the Cinderellas of the production schedule, invariably left to the end of shooting and so involving difficulties in the matching of not only lighting and continuity but also of mood —an insert of hands, for example may need quite sensitive acting).

2. *Mechanics.* By this I mean the careful examination, both on the screen and on the Moviola, of the mechanics of every individual cut. Even the cut that is satisfactory when viewed on the screen, when examined closely on the Moviola may be susceptible of improvement by the removal of a few frames or by making the cut a few frames earlier or later. I believe that it is very rarely indeed that the first attempt at a cut is perfect, because every alteration made elsewhere in the sequence may affect it.

3. *Speed and Tempo.* Generally speaking, if it seems likely that the same effect can be achieved in less footage, the attempt at this should be made. This may involve fading-in later or fading-out sooner, the shortening of reaction shots, the possibility of minor dialogue trims. It may be that the sequence is such that it is possible to speed up primarily on the sound track by making the dialogue so tight and continuous that it imparts a greater speed to the action.

What are called " cheat " cuts will probably be made, by which the screen time required for a certain action becomes considerably less than it was in actual shooting. The point that has to be watched here is tempo of performance. I always try, to begin with, to preserve the rhythm of the actual acting performances, unless these are definitely bad. If they are very bad, the editor's job becomes one of surgery.

4. *Intention and Result.* Apart from all this the editor has continually to ask himself, what is the effect aimed at by the Director ? He also has to ask himself, what in fact has actually been achieved ? If there is a discrepancy, he has to ask himself how far it

THE FILM EDITOR SPEAKS—*continued*

may be possible, by editing, to bridge the gap.

If the intention is not achieved, or there was a flaw in it from the start, the editor finds himself surrounded by a huge jig-saw puzzle, of which some pieces are missing, some are the wrong size, others are badly made, and some even belong to another subject.

Certain lines, shots or sequences he may therefore discard entirely. It is amazing, especially to scriptwriters, how much improvement can be effected at times by dropping a complete sequence. It often seems to them like magic.

The editor will also suggest and try out re-arrangements of sequences or parts of sequences. Such re-arrangements may be very simple—a shot or sequence placed half a reel earlier or later may suddenly clarify a situation and make it dramatic for the first time. Or there may be very complicated and involved reconstruction throughout the entire length of the film. To complete this revised construction, the editor may have to demand new material, which may vary from an odd close-up or two to a whole sequence.

It has, I think, been a not uncommon experience of editors to be called in, rather like a Harley St. specialist, to re-vamp a film which has become the despair of the studio, and to suggest a new ending, or beginning, or middle. After a few such experiences the editor begins to wonder why the company did not save time and money by calling him in beforehand to direct the picture properly.

What then is the Golden Rule of editing? The Golden Rule is that there are no golden rules. Thought must be concentrated on each and every cut. There must be continual experiment, both mentally and with the scissors. There must be willingness to try, to fail, and to learn from failure. Nothing must be regarded as impossible until it has been tried. But a particular cut having been tried and found to work, the tendency to make it into a convention true in all circumstances must be resisted. In the details of editing the open mind is essential.

In editing, for example, smoothness is rightly regarded as a generally desirable quality, that is to say, it is usually considered correct that while the audience should be conscious of the *result* of a cut, say, from midshot to close-up, it should not be conscious of the exact moment at which the cut *occurred*. Editors use a great deal of skill to achieve this. They may match the relative position in the frame of a character or object on one side of the cut very exactly to the position of the same or another character or object on the other side of the cut. They may indicate the start of a movement in one shot and complete it in another, provided that in each shot the movement followed is the first or most obvious. They may use the sound track to achieve smoothness where the action lacks it, by starting a word or sentence in one shot and finishing it in another.

Yet by themselves none of these can be taken as a universal principle. Cutting on movement was virtually accepted as such a principle in the silent film, where I think it had a certain amount of validity. Though, even then, the Russian directors were suggesting by their work—derived, as they acknowledge, from D. W. Griffith—that the whole "rule" could be disregarded with effect. But in the talkie, with the additional dimension of sound to work in, the whole rhythm of film has changed. The best cut, more often than not, is now the cut in *anticipation* of significant action, not the cut halfway through it. But this is still not always true. It is a principle to work to, but not invariably.

Smoothness and preservation of strict physical continuity are, in fact *not* ends in themselves. It is no good having physically smooth cuts from shot to shot if the shots themselves have bad continuity of idea.

In a Russian picture of which I recently edited the English version, "One Day in Soviet Russia," the makers of the film were faced with the task of taking their audience all over the Soviet Union. In order to give form to this vast subject they had recourse to some admirable continuity of idea. They wished, for example, to leap from the Pacific Coast to the Ukraine. This they did in a direct cut by using the idea of "harvest" as their link. The sequence on the Pacific showed a fishing fleet at work and finished on a shot of a hold-full of fish—"harvest of the sea." From there, by means of a straight cut to a field of ripened wheat—"harvest of the land"—they achieved a perfectly smooth transition to the Ukraine, five thousand miles away.

Thus, then, comedy, dramatic, or narrative continuity is the real criterion of editorial smoothness in the highest sense. Physical smoothness is important as well, but can do little by itself. Continuity of idea is paramount.

You must of course first have an idea to give continuity to. Which brings me to some concluding remarks on scriptwriters and directors.

First, scriptwriters. The chief shortcoming of many a script is the failure to realise the unique characteristic I have talked about, the ability to leap from peak to peak. Writers

(*Continued on page 229*)

A Film History of Documentary

By ERNEST LINDGREN

The film described in this article was made for Loan Section of the National Film Library the purpose of which is to make available films from the Library's preservation collection (which illustrate the development and technique of the film as a medium of entertainment and expression). "Film and Reality" is in five parts and consists of 58 extracts from : (1) Early 'story' films, such as "The Great Train Robbery" (1903) and Frank Mottershaw's "Life of Charles Peace" (1903): (2) News reels and interest films from 1901 to 1938: (3) Travel documentaries (including extracts from "Nanook of the North", "Grass" and "Song of Ceylon") ; (4) 'Home' documentaries such as "Industrial Britain" and "Rien que les Heures"; (5) Realistic story films, such as "The Covered Waggon", "Battleship Potemkin" and "Love from a Stranger".

Battle of the Somme, (J. B. MacDowall and Geoffrey Malinn, Official War Office Film, 1916), and Suffragette Riots in Trafalgar Square. (Great Britain, 1909).
The stills accompanying this article are reproduced from "Film and Reality".

UNTIL the last two or three years the film historian has been seriously handicapped by the fact that for many of his facts and judgments he has had to rely on that uncertain guide, memory ; many others he has had to take from preceding histories, also compiled largely from memory. Hence the poor standard of so much film history. Its errors and myths had been handed on from writer to writer until this distorted history was beginning to grow into a legend which no one would or could question.

One result of the National Film Library movement has been to make possible a fresh examination of the source material of film history. The Library, by collecting and representing notable films of the past, enables them to be seen in perspective, when judgments of the past are recognised as having been over-enthusiastic, or insufficiently appreciative or unbalanced. The first fruits of this new film scholarship have already been seen in Lewis Jacobs' *Rise of the American Film*. Jacobs has had access to the collection of the New York Film Library.

Film and Reality, which we have just made at the National Film Library here, represents a new development in the work such libraries can do, namely, the presentation side by side of extracts from notable films for the purposes of contrast and comparison. In making this film the Library sought the help of an outside expert, Cavalcanti, who is not only one of the foremost directors working in this country to-day, but through a long line of achievements in the documentary field, from *Rien Que les Heures* (1924) to such more recent work as *North Sea* and *Young Veterans* has made himself one of the outstanding figures in the development of the documentary film. In a film of twelve reels, running for one hour and forty minutes, Cavalcanti has brought together extracts from some sixty films made between 1896 and September 1939, to illustrate the various ways in which actuality has been used in the cinema. Although its main emphasis is inevitably on the documentary film, it embraces also the newsreel, travelogue and interest film, and touches on the question of realism in the story film. A commentary and incidental music for the silent extracts has been added. The result is something more than a film anthology : it is the first screen essay in criticism, and opens up a new file of film-making which, even if it remains small can be important. *Film and Reality* is already being extensively booked by schools, film societies, and individual students, to whom we hire it at modest fees. Moreover, it is a field in which the amateur can

work, and which amateurs will probably do most to develop. Professionals unfortunately are apt to be too interested in the day-to-day problems of their own particular job to sit back and take the detached view of a student, surveying the cinema as a whole. Especially is it a field which the amateur might consider at this time, when ordinary production is hampered in so many ways. It needs neither cast, studio, locations nor even camera ; simply a projector and a pair of scissors. The greatest difficulty likely to confront the amateur is shortage or inaccessibility of material. But a number of classics can be bought on substandard stock. Some people make a hobby of collecting old 35 mm. films, and suitable extracts from these could be reduced and used. Some ambitious spirits might even contemplate a comparative or historical survey of amateur production. Finally the National Film Library is willing to give what assistance it can to any serious projects of this kind.

Expenses are not high. We made *Film and Reality* for a sum which, although it made a sizable hole in our bank balance is a mere shoe-string in relation to its length and scope.

With the idea of assisting anyone who may be inclined to follow our example, I give these few notes drawn from my own experience.

In order to prepare something for my first discussions with Cavalcanti I decided (with more presumption, perhaps, than wisdom) to prepare a rough script on the history and nature of the documentary film. I already had some ideas of my own, and, to fill in the details, I consulted various books, especially Rotha's *Documentary Film* with its useful list of the work of notable documentary directors.

My first consultations with Cavalcanti, however, led me to throw this script into the waste-paper basket (although it had served a useful purpose in helping me to clarify my own ideas). Firstly, I found that whereas I had interpreted "documentary" in the narrow sense, Cavalcanti's ideas were much broader and embraced every use of actuality in films, fictional as well as non-fictional. This wider view, though it made our task more difficult, was a much more refreshing and fruitful one.

Secondly, and far more importantly, I found that Cavalcanti's method of working was one quite new to me. He was entirely averse from my own idea of a preliminary script. He got me to jot down in random order all the films we might want to illustrate. In many cases he was able to suggest particular extracts, and when we were able to look at the whole film later, in nearly all cases it became apparent that his choice was the only one possible. His memory in this respect, extending back to films seen ten or even twenty years previously, was remarkable.

In selecting the extracts we endeavoured to make them brief, complete and characteristic. Inevitably footage was a serious consideration in covering so wide a field. We tried to make each extract as complete as possible with a definite beginning, middle and end, to avoid showing things which, because they were snatched from their context, were incomprehensible or broke off too abruptly. By "characteristic" I mean characteristic of the best work in the film, and by the particular director concerned. One can discover just how difficult it is to fulfil all these requirements only by making a few attempts at it.

As our extracts were chosen, Cavalcanti allowed himself to be guided on the final form of the film by their appearance on the screen. He approached his task with a general plan in his mind, to which in the main we adhered, but by not committing that plan to paper, he kept it malleable and in a state of constant flux. This method had immense advantages. In a preconceived plan, one might follow extract A by extract B, simply because they were made in the same year, or because they were both travel films. But when seen on the screen, it becomes obvious that from a filmic, as distinct from an academic viewpoint, A is more effectively followed by G. Instead of looking at films as dry items of history, in short, we were able to look at them as living films on the screen, and assemble them also with regard to their emotional feeling, and to allow for the relief of tension and for variety of effect. It was by its appearance on the screen that our work would finally be judged. It goes without saying, of course, that we did not attempt a strictly chronological sequence, which would have been most deadly. The scheme was roughly chronological, with plenty of play within it for comparison of films widely separated in date.

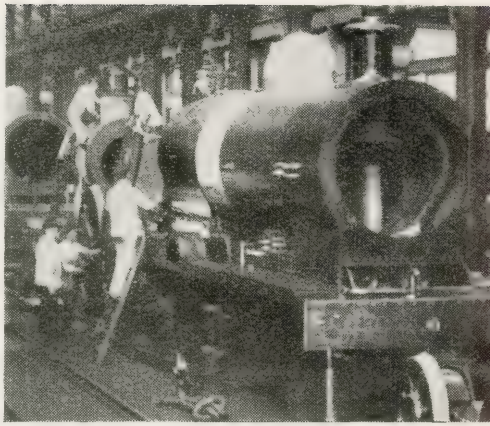
"The Plow that broke the Plains" (Pare Lorentz, U.S.A. 1936).

I should perhaps add that the method appeared to me to have one disadvantage, which needs to be guarded against. It presents the temptation to aim for striking individual effects which are achieved only at the expense of the general plan, and the latter thus tends to become obscured. For example, it may be tempting to contrast D with X, but this can only be done by removing D or X from a key position, or by including X in the film when it is really not relevant to the argument.

The choice of the extracts was followed by their assembly. Each one was preceded by a standardised title giving the name of the film, its country, date and director. This helped to relieve the burden on the commentary, which was written as a series of brief remarks on each extract, signposts to points of interest.

We decided that the extracts themselves should tell their own story. Actually, the writing of the commentary was the most difficult single job on the whole film. The temptation in the commentary to argue particular points of view was very strong. We had to prune it down to the simplest statements, even excluding adjectives which might influence the spectator's judgment, such as " this magnificent film of Joris Ivens", etc. If the film is indeed magnificent, then it should be apparent from the extract. A silent composite film, using titles throughout, would not be subject to this temptation in the same degree.

For some very early silent films, piano music was specially recorded. With an able pianist this gave us no difficulty. We recorded him while he played to the extract. For the other silents we used discs. Selected portions from the discs were dubbed, and then matched to the extract, both with regard to footage and mood. One mistake I made here which gave us a good deal of trouble in editing was (in the interests of economy) to record too little music. For example, I might record one minute of music, running to ninety feet, to be matched with seventy-five or eighty feet of film. Often this did not give us enough play to rearrange the music to the film. In a sound film exact matching of film and picture, because it is technically possible, becomes far more important, and it can rarely be obtained, in such a case as this, without plenty of room for cutting and rearranging the musical sequences. One piece of music I can remember cutting into five pieces, and then entirely rearranging their order. In such a case it becomes important to effect a smooth transition from section to section, so that they fuse once again into a whole. This can be done by working on the musical pauses, or by starting

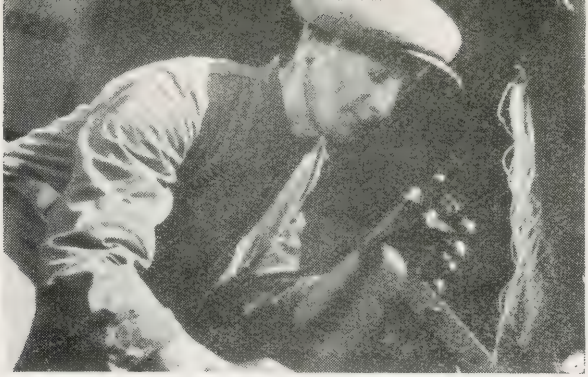


"The Romance of the Railway", (Charles Urban, Great Britain, 1906).

the new section either on the last note of the preceding section, or one appropriate to it, and so on. A hundred devices will suggest themselves to the musical ear. Of them all, I discovered the most important was the matching of the rhythms of the two pieces. The spectator of film may not notice a discord or an awkward tonal interval, but he will immediately detect a clumsy break in the rhythm.

Since, again in the interests of economy, we had dispensed with two music tracks (which would have enabled us to mix from one piece of music to another) in favour of one track only, we were faced with similar problems of musical transition in passing from one extract to another. These were more difficult to bridge, but some sensitive work at the volume controls by Ken Cameron during the final re-recording enabled us to negotiate the more difficult passages successfully.

Cutting the commentary afforded no special problems, except where commentary clashed with titles, and either film or sound had to be readjusted to avoid the coincidence. At one point in the commentary E. V. H. Emmett, following our typescript, described a scene in *The Battle of the Somme* as " Linden Post." While cutting we discovered this should have been " Minden Post." We therefore cut an " M " out of a piece of rejected commentary, and inserted it in place of the " L ". Since this sort of achievement by sound-cutters is sometimes surrounded by a halo of magic and mystery, we felt we had scaled the uppermost heights of the craft. Actually, of course, it merely requires a lot of patience and a magnifying glass. (Lest



"Nightmail" (Harry Watt, Produced by G.P.O. Film Unit, Great Britain, 1936).

"The Covered Waggon" (James Cruze, Paramount, U.S.A. 1923).

it be thought that the first person plural in the last few paragraphs still includes Cavalcanti, who is of course a brilliant pioneer in the imaginative use of sound in films, I should perhaps make it clear that Cavalcanti had no part in technical assembly, beyond criticising our work from stage to stage. In the editing my assistant was Harold Brown, a technician at the Film Institute ; he is one of those quiet workers who get no formal credit, but without his enthusiasm and patience we would not have achieved the results we did.)

I can promise any amateur who should undertake such a task that he will learn much from it. I certainly learnt more than I would have believed possible. It is one of the dangers of amateur production that one tends to concentrate too much on one's own efforts, to think continually of the production immediately in hand. A project of this kind compels one to look outside one's own work, to examine the achievements of others critically and attentively. (There are many other possibilities for the amateur in film appreciation work, by the way. Lamentably few films have been made on cinematography itself. When is someone going to make a film which could be partly extracts, partly shots, especially taken to illustrate camera viewpoint, the uses of editing, the moving camera, film continuity, and a hundred and one other facets of film expression which would be of absorbing interest to the layman if effectively presented, and would help him to understand more of the films he sees ?)

I cannot end without mentioning one general conclusion which I have drawn from my experience on *Film and Reality*. A film made up, as this was, of many extracts, is a great strain on the attention, which is being continually switched from one fragment of a film to another. From beginning to end, one is under the overriding necessity of imposing a unity on this inherent disunity. This can only be done, firstly by making the theme or argument as simple as possible, and keeping it clearly in the forefront all the time ; secondly, (and perhaps this is merely saying the same thing in another way) by regarding the commentary not simply as a series of detached observations, but as a connecting thread along which the extracts can be strung ; and thirdly, by continually striving to make all the minor elements, such as music and titles, serve the purpose of unification as well as their more particular functions. Even when all this has been done, I think there is a definite limit to the number of extracts one can present in such a film. What that limit is depends on the circumstances. It is much easier to exceed it than to fall short of it ; but rather err in falling short than in exceeding. That is one reason why one need not be deterred by an apparent shortage of material. Scarcity of extracts, like the absence of sound commentary, may well prove a blessing in disguise.

THE FILM EDITOR SPEAKS

(*Continued from page 224*)

too often ignore this, which means they think not visually but only in words. As a result they over-write. They don't conceive their subjects as they should, in terms of a constant interplay between a minimum of dialogue and the visual effects only possible in film. They tend, too, to think in terms of one sequence or scene at a time, to the detriment of the over-all flow of the picture. Such scenes consequently seem stagey—you can almost see the curtains open at the beginning and close at the end.

There is an example of what I mean—or was until we removed it—in the reel of "Pimpernel Smith." I am sure Anatole de Grunwald, the writer in question, will forgive me for quoting it. Leslie Howard and a group of undergraduates go from Cambridge to Germany. The succession of shots used to indicate this are simple and direct. They are :—

1. Leslie Howard at Cambridge announces the intention of going.
2. Poster indicating Germany.
3. Railway train (therefore *German* railway train).
4. Howard and boys in train (therefore in Germany).
5. Mountains (therefore where they are going).
6. Actual arrival in mountains.

This scheme was implicit in the script and in the shooting. Only one complication crept in. This was that it was felt in writing the script that number four, the scene in the train, needed dialogue. There was no story point to put over at that stage, so a gag was invented—quite a good one. This, in its turn, suggested another. And then the scene needed a curtain, it was felt, so a third gag was added to achieve a tag line. The result was that the sequence of ideas leading from Cambridge to Germany was blurred because, although considered by itself, the scene was amusing, it took 2¼ minutes to play and so the tempo of the film took a nose-dive. Fortunately we realised this and put the matter right. In the film as you will see it, there are six feet left of that scene and all the dialogue has vanished.

The editor's relations with the director can only be satisfactory on the basis of the latter's understanding of and respect for the principles of editing. Otherwise they are talking different languages But I would rather work with a director who, while he knew nothing of editing, was willing to learn the editor's point of view, than with a director who thinks he knows about editing because he has learnt to repeat glibly a few rules of thumb which he treats as sacrosanct principles. In this, I know I speak feelingly for my whole tribe.

Films of the Quarter

A SELECT LIST OF RELEASES YOU SHOULD MAKE A POINT OF SEEING

June 15th : **Reap the Wild Wind** (Paramount).
Cecil B. de Mille spectacle in Technicolor, featuring Ray Milland, Paulette Goddard and John Wayne. A drama of the sea, set in the last century.

June 15th : **How Green Was My Valley** (Twentieth Century Fox).
Adaptation of Richard Llewellyn's novel, directed by John Ford, with Walter Pidgeon, Maureen O'Hara and Roddy McDowell. A distinguished, but not inspired piece of work. Contains a fine piece of character acting by old-timer Donald Crisp.

June 22nd : **Remember the Day** (Twentieth Century Fox).
A sentimental tale of a school-marm's romance with a soldier of the Great War who did not come back. Very effective production on entirely conventional lines. Featuring Claudette Colbert, John Payne and Douglas Croft.

June 29th : **The Man who came to Dinner** (Warner).
Romantic comedy, adapted from play of same name, directed by William Keighley, with Bette Davis, Ann Sheridan and Monty Woolley. A very amusing piece, but showing all the limitations of the slickly-made adaptation of a stage play.

June 13th : **They Flew Alone** (R.K.O. Radio).
Herbert Wilcox's version of the careers of Amy Johnson and Jim Mollison, with Anna Neagle and Robert Newton in the title roles. Surprisingly enough, one of the most interesting films of the quarter and should not be missed. The direct simplicity of the narrative and the way in which its extremely difficult theme has been handled gradually discount the physical disparities, (although Newton conveys a very credible Mollison manner.) Without noticeable whitewash, it performs the odd achievement of adding to one's understanding of the principal figures.

July 27th : **One of our Aircraft is Missing** (Anglo-American).
The adventures of the crew of a British bomber, reported missing in Holland, and their escape to England. Directed by Michael Powell, the man who made **49th Parallel,** and featuring Godfrey Tearle, Eric Portman and Googie Withers.

June 27th : **The Bride came C.O.D.** (Warner).
Happy-go-lucky farcical comedy with Bette Davis and James Cagney, directed by William Keighley, (**cf. The Man who came to Dinner**). Nothing novel either in story or treatment, but excellent entertainment for all that.

CIVIL DEFENCE AND FIRE SERVICE FILMS

Information is being compiled by A.R.P. and N.F.S. REVIEW (the Civil Defence Journal) on all films taken in connection with Civil Defence and Fire Service activities and cine photographers who have made any such films are asked to communicate details to the Editor of this Journal at 6, Carmelite Street, London, E.C.4.

"Easy Street" and "Doing-Doing-Done"

A CRITICAL COMMENTARY BY

H. A. V. Bulleid, M.A.

"EASY STREET"

CHAPLIN started films in 1913 with Keystone, playing with Ford Sterling (*Between Showers*), Mabel Normand (*Mabel's Busy Day*), Fatty Arbuckle (*The Rounders*), etc., etc. He joined Essanay in 1914, by then thoroughly established. In the middle of 1916 he signed with Mutual for twelve comedies that came to be known as the "million dollar Chaplins," at a salary of ten thousand dollars a week plus one hundred and fifty thousand dollars bonus. These were all 2-reelers except *The Count* and *One A.M.*, the most famous of them undoubtedly being *Easy Street*.

Contemporary features include *Intolerance* by D. W. Griffith, Mary Pickford in *The Poor Little Rich Girl*, Douglas Fairbanks in *The Americano*, Theda Bara in *The Darling of Paris*, Owen Nares and Fay Compton in *One Summer's Day*. As for the other comedians, Buster Keaton (smiling) was supporting Arbuckle in Paramount Comedies, Harold Lloyd had just put on his glasses, and Lloyd Hamilton, Bobby Vernon, Charlie Murray & Co. were going strong. Stan Laurel did not start till 1918.

The story of *Easy Street* is sublime, typically Chaplin, and a provocative comment on its unusually apposite title: for of course Easy Street is anything but easy for its raw guardian. . . A tramp wanders into a mission service, and immediately falls in love with the Pastor's daughter. He (therefore) joins the police, and ingeniously captures a hooligan. His casual theft of food for the hooligan's wife is mistaken for open-handed generosity by the Pastor's daughter, and together they visit another poor family. Meanwhile the hooligan escapes, and a terrific chase and fight ensues, ending triumphantly for the tramp. And next Sunday a reformed Easy Street attends the Mission in force. . . .

This simple and wholly admirable narrative, with its pungent cause-and-effect, its development leading logically up a rising curve to a strong climax, and its excellent final sequence, makes an ideal basis for Chaplin's liberal gift of comedy. The deft continuity, witty and detailed characterizations, and ever-riotous incident, make the full version a rare gem: and the abridged 9.5mm version, which will be discussed here on account of its greater availability, loses little in its skilfully-pruned state, though of course tempo is upset and some details of Chaplin's careful pattern are lost and the additional titles inserted to bridge the gaps of pruned footage conceal the title-free perfection of Chaplin's original script.

The opening discovers Chaplin asleep outside the Hope Mission. The Pastor's daughter, heavily back-lit in a medium Close-up with terrific depth of focus, leads the singing; and it is her voice that rouses the tramp. He wanders in. As he passes the collection box, his palms itch—a neatly detailed bit of pantomime. He cannot read, so holds his hymn book for an infant in arms next to him.

Intercuts are medium Close-ups of the Pastor and his daughter, the latter drenched with back-top lighting. In a curiously intense Close-up, Chaplin looks back at the girl with an expression of devotion. This serious moment is well placed and admirably played. He sits there dumbly while the rest file out, then, conscience-stricken (and with inimitable comic counter-point) he hands back the collection box which he had secreted in the front of his baggy trousers.

Long and mid-shots of a hectic fight introduce Easy Street; a cut-in long shot of a knocked-out policeman arriving (on stretcher) at the police station affords an admirably pithy comment on the tough residents. Outside the police station a notice announces a vacancy (cause and effect); and Charlie meanders into the picture.

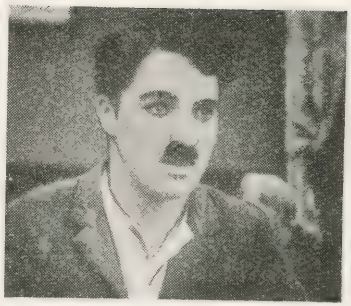
Whether the ludicrously redundant title, *Policeman wanted at once*, was inserted to cover the small continuity gap, or to cater for people refusing to read the large notice, or to spin out the length of the reel in the days of notched titles, is open to free debate. Charlie valiantly enters the Police Station.

Back at Easy Street, the chief hooligan

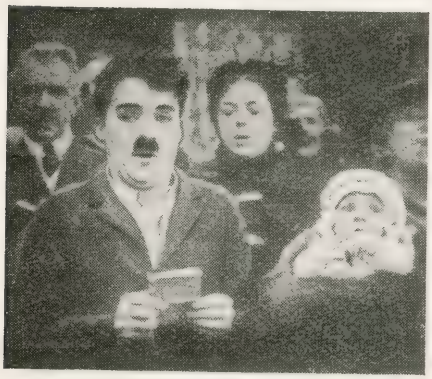
Production . . . . Mutual Film Co., New York, February, 1917.
English Release . . June, 1917.
Length . . . . 2 reels, about 1,800 feet.
Written and directed by Chaplin.
The Players:—
A Tramp . . . . Charlie Chaplin.
A Pastor's daughter . . Edna Purviance.
A Hooligan . . . . Eric Campbell.
Sub-standard Availability:—
One reel, 9.5mm. =750 feet, 35mm.
Two reels, 16mm. =complete film.

FAMOUS LIBRARY FILMS:

Nos. 13 & 14



Left: A tramp - - - Charlie Chaplin
Right: The Pastor's Daughter Edna Purviance



Charlie Chaplin in 'Easy Street.' The hymn book gag.

shakes the money from the borrowed trousers of another disposed-of policeman, and a detail Close-up shows the money landing in the road and hands greedily grabbing. Then in a well-arranged long shot they all rush after their victim, whose helmet is left, forlornly picked out by incongrous sunshine in the foreground.

The tough work in Easy Street is cross-cut with Charlie's comic enrolment, the latter culminating in the pungent instruction :— "*Your beat's on Easy Street.*"

With the hooligan towering in the foreground and the camera looking straight along one side-walk, a really thoughtful long shot introduces Charlie as a diminutive speck, which, with those characteristic steps and mien that made him the most famous comedian in the world, comes bravely up to its enormous opponent. Several interpolated titles ruin the flow but cannot spoil the pantomime of the action that follows : Charlie's nonchalant foot-wiping on his fallen colleague's coat : his idle walk towards the telephone : his pretence that the receiver is first a musical then an optical instrument : and then his mighty swipe with his truncheon at the hooligan's head—and utter panic when this produces no more effect than to make him scratch his ear.

Then comes a famous and memorable incident. The hooligan leisurely bends double a gas street-lamp to demonstrate his might, and Charlie nips on to his shoulders and turns on the gas. A horrific Close-up emphasizes the gassing. . .Charlie walks straight over the unconscious hulk and 'phones for help. In medium close-up the sergeant receives the call, in long shot the Cops turn out, and they bear away their prize, idly watched by the captor.

In mid-shot of a street-vendor's stall with vendor sleeping peacefully near the camera, the hooligan's wife does her furtive "shopping." Charlie accosts her, but she dissolves in tears—and he does the same, then hastily pinches another good load from the sleeping vendor. As he hands over the spoil, the Pastor's daughter comes up, and compliments him prettily. All this action is covered with the same mid-shot camera position ; but intercut, with suspense-laden counterpoint, are shots of the handcuffed hooligan at the police station : now he breaks completely loose and, hurling one limp body before him, he strides out.

In a room simply seething with children of graduated ages, Charlie distributes chicken-food and pins his star badge on the diminutive father, an absolutely typical Chaplin vulgarity of pure and mellow vintage.

Across the street, the hooligan is already fighting his wife in their bedroom : in mid-shot he hurls the wash-basin at her : in long shot (looking down the street from a high angle) it sails across the top of the frame, but will be missed by many in the audience owing to the confusion of other irrelevant movement in the shot : and in

Cause and no Effect!
(Chaplin and Eric Campbell)

Brains versus Brawn
(Chaplin and Eric Campbell)

Easy Street
" And the following Sunday . . ."

mid-shot it cops the father, who collapses in Charlie's arms.

Here two or three frames have been lost at the cut, the basin already being smashed when the mid-shot begins. Charlie scents irregularities, and a nice high-angle long shot covers his entry into the house opposite. Meanwhile the hooligan hurls more crockery, again hits the father : and again two or three frames missing at the cut spoil what should be a very crisp effect.

Charlie has thumped his chest and started up the stairs, blissfully unaware of danger : and a brief long shot in the bedroom shows him appear in the doorway, realize the horrible truth, and dart away : and down the stairs, in and out of houses, and back up again, the hooligan chases, in an abandon of meticulously perfect timing.

Another horrific close-up shows the hooligan swallow the key of the locked bedroom door ; so Charlie nimbly escapes through the window, sliding down the drain-pipe : then, carelessly, he re-enters the house, meets the hooligan on the stairs, escapes again and tips a cast-iron stove on him from the first floor window, successfully knocking him out. Charlie sits down for a quiet smoke, but the chair has no back. . . .

The Easy Street roughs have by now collected, and as the Pastor's daughter approaches the house she is grabbed and carried down to an unsavoury basement. Emerging from the house, Charlie also is grabbed, and borne away in a long shot which was almost identically repeated in *The Great Dictator* (1940).

Then, a typically excellent sequence,—

a. L.S. (in basement) A frightful bounder lurches towards the girl
b. M.S. (in street) The roughs drop Charlie through a coal hole . . .
c. L.S. (as a) . . . he lands in the basements, gets well coshed by the bounder, collapses on to a bench . . .
d. C.M.S. . . . sits up wryly, pulls out the spike he had sat on and, aroused . . .
e. L.S. (similar to a) . . . bashes the bounder, who's embracing the girl, deals swiping blows at him, whose momentum swings him around to clasp the girl. Another rough enters and gets kicked down
f. L.S. (adjacent basement) Charlie kicks down a whole mob, and . . .
g. M.S. (same, further back) . . . they all collapse
h. L.S. (as f) They advance, he knocks one out, swings another over his shoulder, trips a third over his back . . .

. . .and finally conquers the leader who attacks from the rear, and jumps off from him back through the coal hole : and fervently approaches the girl but spoils the effect by tripping over the hole again ! Then tries again and succeeds. . .

The whole inimitable last sequence of the film is covered in only two shots, a glaring failure to apply film technique : but such is

the joyous and delightful effect that recriminations are futile. The first shot shows, from high angle, Easy Street next Sunday : the new Mission catches the eye, and all paths lead to it.

In the second and last shot, policeman Charlie occupies the foreground and greets the reformed toughs as they pass with their wives, arrayed in their Sunday Best. The hooligan's wife starts at the street side of the side walk, so he courteously changes places with her. Charlie watches them, then brightens as the Girl approaches him : carefully they link arms, but she has somehow got to the outside of the pavement. . .so Charlie carefully changes over, and the camera pans a little to follow them as they enter the New Mission.

... ...

Such is the stuff of this famous comedy. And now that it has endured for twenty-five years (including twelve years of talkies), and since, in spite of mutilations and imperfect prints, it never fails to captivate its audiences, we can well believe that it will endure for ever.

" DOING—DOING—DONE "

Production .. Hal Roach " Rolin " comedies, Court Street, Hollywood, late 1917.
English Release .. Early 1918. Distributed by Pathé.
Length .. .. 900 feet.
Written and Directed by Hal Roach, Harold Lloyd, and Alf Goulding.
The Players :—
One Swindler .. Harold Lloyd
Another .. Snub Pollard
The Girl .. Bebe Daniels
Sub-standard availability :—
One reel, 9.5mm.=750 feet 35mm.

Harold Lloyd began film work in 1913 as an extra with Universal, a colleague being Hal Roach who later set up as a producer and engaged Lloyd as his leading comedian in *Willie Work*. Then after a short spell with Keystone he returned to Roach in the character *Lonesome Luke*.

Early in 1915 both Bebe Daniels and Harry " Snub " Pollard joined, and the three proceeded with one and two-reelers for two years, making about eighty. Early in 1917 Lloyd had the inspiration of the glasses, and one-reelers with this character, of which *Doing-Doing-Done* is typical, were made at the rate of one a week till April 1919.

Then Lloyd proceeded with two-reelers and gradually longer films, every one of which was hugely successful. *Grandma's Boy* (1922), *Safety Last* (1923), *Speedy* (1928), and the talkie *Welcome Danger* (1929) will be happily recalled. Snub Pollard went on to make comedies on his own, including the inventive *It's a Gift*. Bebe Daniels proceeded to a career as consistently successful as any Star : highlights being the lead opposite Rudolph Valentino in *Monsieur Beaucaire* (1924) ; *Rio Rita* (with John Boles, 1929) ; and *A Southern Maid* (British, 1934, with Lupino Lane). The impression that *Hi Gang!* (1941) was Bebe Daniel's first film would appear to be inaccurate.

The germ of three successful careers is well in evidence in the 1917 *Doing-Doing-Done* : and though this lacks the genius of the contemporary *Easy Street*, it was shot in less than a quarter of the time and was not an outstanding specimen, both *Town Tricks* and *Look Out, Below* being more inventive, to name at random two which are, unfortunately, not available.

Doing-Doing-Done is a gag comedy, the gag framework or " story " being merely a progressive reversal of stealings between rival swindlers. The opening is briskly descriptive : Miss Goulash concludes a seance with a greatly-impressed client : Professor Goulash leaves his " effects " room to collect the takings : and both change and go out, putting up a notice " Will return at 4 p.m."

This brief opening sequence, lasting about one minute, uses no less than five sets (seance room, effects room, hall, dressing room, and exterior of house) all of which appear again later on. This variety adds to the slick effect so typical of Lloyd's comedies. The only fault in the sequence has been gratuitously added—an inserted close-up of a " Will return at 4 p.m." notice which is hopelessly dissimilar from the mid-shot, causing a ludicrous discontinuity.

One excellent and typical mid-shot introduces Lloyd and Pollard with a gag that ingeniously expresses their dubious business morality. We first see some swaying bushes, and a Cop walks by. Then the bushes part, and the two emerge. Suddenly, they retreat, the bushes magically opening for them : the Cop walks back. Then they emerge again. Cut-in is a shot of Professor Goulash settling down on a seat in the Park. The two approach. Harold is being studiedly nonchalant, whistling lightly.

Two redundant titles have been inserted at this point, the action itself being perfectly clear :—

a. L.S. They walk past the Professor, pause behind a bush . . .
b. CM.S. From suitcase labelled " Phoney Jewelery Co." Harold takes a ring . . .
c. C.S. . . . and hands it to Snub . . .
d. L.S. . . . who drops it in the path then searches wildly, disturbing the Professor, who also begins to search. Harold hides the suitcase, strolls in, finds the ring, and remarks . . .
e. TITLE " *By Jove, what a fine ring* "

f. CM.S. . . . and is walking off but the Professor takes out a wad of notes and offers a few, then more—then Harold takes the wad and returns the few and hands over the ring, and . . .

g. L.S. . . . the Professor hurries off and Snub comes back and the two deftly link arms and walk off.

This is decidedly satisfactory. Lloyd's acting is succinct, the action is witty, the narrative value brisk. Pollard puts in a witty touch as he looks after the victim, tilts his hat, and crosses his legs. This actor came from an Australian vaudeville act. His amazing moustache was born when he accidently reversed a pair of Kaiser Wilhelm moustaches while trying them on, according to Lloyd in his happy autobiography "An American Comedy" (Longmans, 1928).

Harold and Snub next proceed to work the phoney ring routine on a whole group of people, including Miss Goulash: she, however, isn't having any, and when the swindlers withdraw she follows them. The explicit narrative value, apt and typical gags, and general comic exuberance of the shots making up the next sequence demand quotation. . .

a. M.S. The two count out their spoil, Miss Goulash watches from behind.

b. C.S. She has an idea: takes her money from her bag, and . . .

c. M.S. . . . places the bag near Harold's feet, and hurries away . . .Fade-out

d. M.S. (Fade-in) (as c) . . . and returns with the Cop. The two still count money. The Cop nudges them, and they whip it away like guilty lightning. They deny any knowledge of the bag, so the girl points to it. Harold picks it up with a laugh that would disarm any decent Cop. Snub looks incredibly innocent

e. CM.S. The Cop grabs it and hands t to the girl. She opens it and exclaims . . .

f. TITLE "*I had over* 200 *dollars in my bag*"

g. CM.S. (as e) . . . she cries. Cop looks into empty bag

h. CM.S. Harold and Snub uneasily handle their money

i. M.S. The Cop swings his truncheon. Harold kisses the money good-bye. The Cop grabs it and hands it to the girl, who . . .

. C.S. . . . puts it, and her own also, back into her bag, smiling

k. M.S. (as g) She goes. Cop looks at the two . . .

l. M.S. (taken with the Cop's back, hunched threateningly, filling the foreground) They get up, link arms, stroll off; look back, hurry along; look back again, break into panic dash, out of the picture . . .

Harold's uneasy calm, Snub's aloofness, Bebe's wide-eyed innocence, and the Cop's uncompromising ferocity to the former and smiles at the latter are very joyous. The gag in the last shot, which uses the same camera-angle as Chaplin's first walk along Easy Street, is one of the oldest in films, but seldom has it been executed with such supreme polish.

They fetch up outside the Goulash dive, and almost walk into another Cop; but instead wheel sharply and enter. The Lloyd-Pollard timing, even in simple turns such as this, is worth noting. Lloyd lent to his comedy a slick precision of movement superior to that of Chaplin.

Harold enters the seance room and dons the Professor's clothes: Snub enters the dressing room and dons queer female garb with veil. Cross-cutting condenses the action. The Cop is defeated by the apparitions, and withdraws. Harold unmasks Snub with several gags, inimitably put over. They then put up the "Open for Business" sign. Here again a hopeless close-up has been inserted by somebody.

In mid-shot, Harold sits at the medium's table, becoming increasingly uneasy as a hand moves, a mummy breathes out smoke, and feathers flap. He reverts to his own straw hat and retreats—then sees Snub operating the effects. Gaily, in full long shot, they dance with tambourines—and Miss Goulash enters, peeps in, withdraws. Then she knocks and enters, to find them doing an incredible act, Harold arm-waving and Snub salaaming.

Snub is only just prevented from braining her with an enormous mallet on realizing who she is: and then she applies her knowledge of the effects by causing a skeleton to appear and disappear, enabling Harold to turn on his always amusing expression of horrified dismay. Snub next steals her money; but Harold steals it from Snub; but Bebe steals it back from Harold—all with immense virtuosity.

As the two hurry to leave, the Professor returns,—a futile mix from long shot to mid-shot, quite foreign to the Lloyd technique, has got in here and causes confusion. After a brisk chase, including a combined backward somersault that floors the Professor, Harold is flung out and so is Snub, the action being. . .

a. L.S. (exterior, house door in background) Harold comes flying out, overturns, rolls down steps: Snub ditto, flying foot walloping Harold's head, ends sitting beside him

b. M.S. They laugh. Snub whispers, feels in dress for money, gets up frantically, Harold winks at audience . . .

c. M.S. (higher angle) Snub gives up searching, Harold feels for the money in *his* pocket, frantically feels, gives up Snub knocks him down. He bounds up, enraged, and . .

d. L.S. . . . chases Snub away into the distance.

FADE OUT THE END

Again, this is all perfectly explicit, but has been weakened by the insertion of two titles in shot (c) which laboriously explain the obvious financial situation. Looking at the camera (shot b) was unusual at this period, particularly with Lloyd; but has since become a stock gag with Oliver Hardy, Groucho Marx, and Tom Walls.

The running-away ending is satisfactorily applied to comedies of this type, particularly as they were produced and shown at one-a-week, so next week one saw the same three principals in some new racket. On the other

Harold Lloyd, Snub Pollard and Bebe Daniels in 'Doing-Doing-Done.'

hand, many (including the *Safety Last* prototype, *Look Out, Below*) did have a romantic Harold-and-Bebe ending in the Chaplin *Easy Street* manner.

It would be absurd to pretend that *Doing-Doing-Done* is as good a film as *Easy Street*. Chaplin's work is profound (at least in patches) and there are unquestionably touches of genius. Little gestures of wiping boots on Police jackets and squinting through earpieces are genius as inimitable as the warm softness of a Morland or the stirring thrill of the Walkyrie.

Harold Lloyd never set out to do what Chaplin did : his object, perfectly fulfilled, was sparkling comedy ; and this he put over with a mechanical precision and effervescent personality that are delightfully amusing, if perhaps shallow. Buster Keaton, his agile imperturbability contrasting with generally uncontrolled mechanical surroundings, came somewhere in between the two.

Each failed to beat the others on their own ground : thus Chaplin's tight-rope act in *The Circus* was pale beside the skyscraper climb in Lloyd's *Safety Last*. Neither Chaplin nor Lloyd could have approached Keaton's trouble with the gun his engine towed in *The General*. The Keaton two-reelers (1922) were available in France on 9.5mm. before the war, so it is probable that we shall have them on our screens shortly after victory, if Messrs. Pathescope do their duty.

The one and two-reel comedies, from their discovery up to the late 1920's, are a joy that no noise can lessen : they were inventive and funny, and are funny still, and always will be—both to the man (and boy) in the street and to the lover of cinema who can look a little deeper and see subtle touches and enjoy the ideas and personalities of these admirable comedians.

... ...

These comedies deserve music, and cue-sheets are appended. These will serve as models from which even more apt accompaniments may be devised as alternatives. The method of setting out the cue-sheet is clear and straightforward : where a record has to be repeated, the needle is lifted at the end of a movement and replaced at a marked spot, which takes about a fifth of a second and passes unnoticed. A firm and confident hand is required, and tailor's chalk indicates the restart point.

EASY STREET.

Feet	Cue	Record	Code
0	Main Title.	Serenade (Widor)	HMV. C. 3094
50	TITLE—Easy Street	Ragamuffin (Rixner)	HMV. B. 8510
80	TITLE—Bill Bashem, *etc.*	Parade of the Tin Soldiers (Jessel)	Parlophone F. 1312
150	TITLE—Mrs. Bill had, *etc.*	Serenade.	as cue No. 1.
200	Hooligan fights wife.	Ragamuffin (& repeat)	as cue No. 2.
275	TITLE—And the following Sunday...	Serenade.	as cue No. 1.

DOING-DOING-DONE.

0	Main Title.	Love's Dream after the Ball (Czibulka)	Parlophone, F. 1312
35	Harold and Snub appear.	Pony (Rixner)	HMV. B. 8510
80	TITLE—Look, there's a crowd, *etc.*	Perpetuum Mobile (Strauss)	HMV. B. 3149
140	Counting their spoil	Love's Dream	as cue No. 1.
175	Run away from Cop.	Pony	as cue No. 2.
235	Bebe enters house.	Love's dream	as cue No 1
280	Professor enters.	Annen Polka (Strauss)	HMV. B. 3149

"DO IT YOURSELF!" practical ideas for the handyman

A FIRM TRIPOD for Home Construction

In each issue our contributor supplies worth-while ideas: things to make and things to do. Suggestions for gadgets are welcomed.

By G. A. GAULD, B.Sc.

THE ordinary commercial tripod which may be purchased for the matter of a few shillings is a remarkably well made piece of apparatus. It is light in weight, compact, and, used with a small cine camera, will produce a reasonably steady picture. For critical work, however, it is too flimsy. To get a rock-steady picture, a rock-steady tripod is needed. Excellent tripods are available, robust enough to cater for the heaviest camera but, being a precision job, they are necessarily expensive, costing perhaps as much as a simple camera. The price may well put such tripods into the class of luxury gadgets and to readers of these pages the question naturally arises as to whether or not a really satisfactory tripod can be made in the amateur workshop.

A tripod is a tricky thing to make and it must be well made if it is to compete successfully with the commercial article. The limitations of the amateur workshop must be borne in mind, but by the choice of easily worked materials and a well considered design, there is no reason why the handyman should not turn out a job which will give a very good account of itself.

The first question to be considered is size. As we are primarily concerned with rigidity and not compactness, the tripod should be made large enough to suit all requirements. This means that the legs should be about 4 ft. 6 ins. long, bringing the camera more or less to eye level. If the tripod is to be used in the home studio or around the garden, then the extra work involved in the construction of telescopic legs is hardly justified. Should it be intended for use "on location," however, not only will telescopic legs assist in setting up on rough ground but the advantages of being able to close up a 4 ft. 6 in. tripod to about half that length for transport in the back of a motor car, will be obvious.

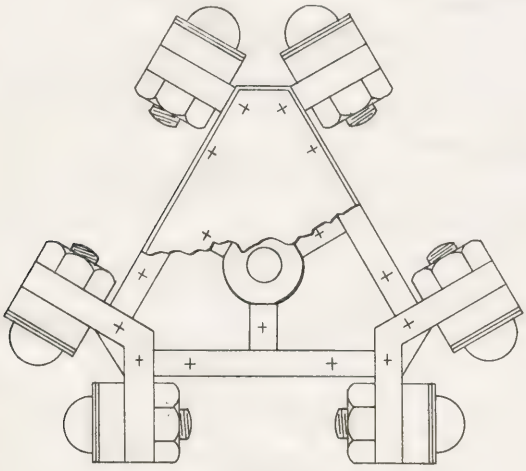
As the head is common to both types and is the most important part of the apparatus, its design and construction will be dealt with first. A cast head would, of course, be ideal, carried out in a light but strong metal such as Duralumin. However, this metal cannot be obtained for private purposes at the present time and although some amateurs could doubtless make the pattern and have a casting made from it, few will have the facilities for machining it. Consequently, a built-up job must be substituted and as soldered joints will feature in the construction, any form of Aluminium must be ruled out. Brass, if heavier, is readily soldered and obtainable at engineering workshops, some garages and ironmongers and at shops which cater for the model maker.

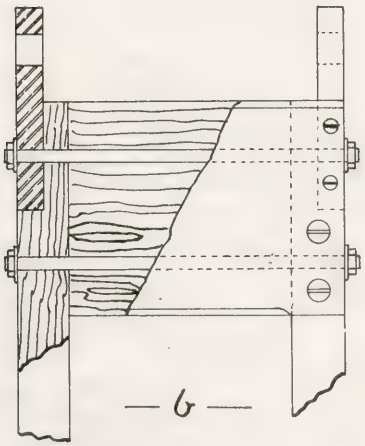
The make up of a very strong tripod head is shown in Fig. 1. The first job, having secured the necessary materials, is to cut out and finish all the component parts. The top and bottom cover plates are cut with a hacksaw from sheet brass, $\frac{1}{16}$" thick and cleaned up with a file. The side members and gussets are sections of $\frac{3}{4}$" x $\frac{1}{4}$" rectangular brass rod and the centre boss a length of 1" dia. round brass rod. The centre hole is not drilled through at this stage and will be dealt with later. The lugs which take the ends of the legs are made from three lengths of the $\frac{3}{4}$" x $\frac{1}{4}$" rod. The centres of the holes are marked off very carefully, then the holes themselves are drilled through and tapped $\frac{5}{16}$" Whit. or better, B.S.F. For the latter finer thread, a tap can probably be borrowed from a garage as this thread is largely used in motor car work. The ends of the lugs are then rounded off concentrically with the holes. This accomplished, the bar is almost cut through at its exact centre with a hacksaw and the cut then opened up with a three cornered file to form a V-groove, slightly greater than 60 degrees. The faces of the groove are next tinned with solder. The bar is then bent up at the groove so that the two halves form an angle of 120 degrees with each other, making the double ended lug shown in Fig. 1a. As the V-groove was made slightly greater than 60 degrees, it will remain slightly open. Solder is run into this opening and after cleaning up with a file, the lug is completed. The other two are formed in the same way.

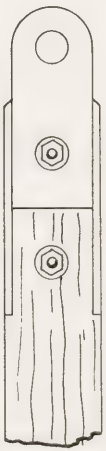
The next job is to drill and tap the holes for the screws which hold the various parts together between the cover plates. To

ensure that they all line up, the components are assembled and held between the cover plates by means of a clamp. The holes are then drilled right through, tapping size, after the positions have been marked and centre popped on one of the cover plates. The holes are then tapped right through the lugs and other members and the holes in the cover plates enlarged to clearance size and countersunk to take the screws which are to be used. It will be found that $\frac{1}{8}$" Whit. screws are rather clumsy for the purpose ; 3/32" model makers' screws or No. 7 B.A. will be better.

These fixing screws alone would not produce a very efficient job but are required to assist in the process of sweating together all the component parts. This job is best tackled on a gas ring, a sheet of scrap metal—any old plate will do—being used as a hot plate over the ring to distribute the heat more evenly. All the surfaces which will ultimately be in contact are " tinned " with solder. This is easily accomplished by heating up the various parts on the hot plate and running the solder along the surfaces with an ordinary soldering iron. When this job has been completed, some of the holes may have become clogged with solder and the drill or tap should be run through to clear them. All the components should now be fixed into place on one of the cover plates and returned to the hot plate. As soon as the assembly has warmed up to the point when the solder once again becomes liquefied, the screws are tightened up. The other cover plate is dropped into place, the screws fitted and tightened up in the same way as soon as the solder has melted. The whole assembly will then be found to be thoroughly sweated together, providing a head, which, though built up, will be just as strong as a solid casting. The job is finished by cleaning up any surplus solder with a file and finally drilling a hole right through the centre of the plates and boss, $\frac{5}{16}$" diameter. The tripod head fittings which may be varied to suit individual requirements will be described in the next issue. For the moment, the next job to consider is the legs.



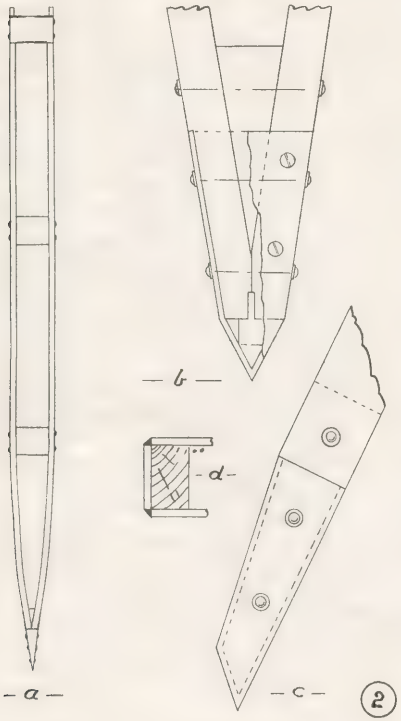




Non-telescopic legs, being the simpler type, will be considered first, though the design of the fixings to the tripod head and shoes are common to both types. The head fixing is of the utmost

importance, for a poor joint here will produce an unsteady tripod. Wood to metal does not make a good moving joint, consequently brass ends must be fitted to the legs. These are drilled $\frac{5}{16}$" to be a tight fit on the shank of the corresponding "machined" type bolt which forms the pivot. The bolt passes through the leg, into the tapped hole in the tripod head lug and is prevented from coming loose by a locknut. A spring washer fitted under the head of the bolt provides some adjustment as regards the stiffness of the joint.

The legs themselves are each made up from two lengths of straight grained timber, $\frac{7}{8}$" x $\frac{5}{8}$" in section, braced apart by hardwood spacers and tie rods, $\frac{1}{8}$" dia. (Fig. 2a). A similar construction is used at the head fixing, with the addition of two brass cover plates, sweated and screwed to the brass ends of the legs as shows in Fig. 1b and 1c. It will be realised that the cover plates provide rigidity in one direction, while the spacers and tie rods grip the brass ends in the other direction, making the whole job strong and solid. The tie rods are simply lengths of steel rod, $\frac{1}{8}$" diameter, screwed $\frac{1}{8}$" Whit. at each end. Brass nuts are used and washers, to prevent the nuts digging into the wood. The nuts are secured by burring over the ends of the rod after they have been tightened up.



A sketch of one complete leg is given in Fig. 2a, showing the two timbers drawn together at the bottom to form a foot. Both from the point of view of strength and serviceability, it is necessary to provide a brass shoe, to protect the timber. Details are shown in Figs. 2b and 2c. The same form of spacer and tie bolt construction will be noted, bracing the two side members together and providing an efficient connection with the shoe. As a backing for the actual point of the shoe, a piece of brass rod is filed up to a pyramid shaped point at one end and a spike at the other, by means of which it is driven on to the end of the timber leg. The remainder of the foot is then built up around this by cutting the four sides of each shoe out of $\frac{1}{16}$" brass sheet. The side pieces are fixed into place with the tie rods and the top and bottom pieces with countersunk wood screws. The angle joints are then run with fillets of solder as indicated in Fig. 2d. The whole job is completed by varnishing the timber portions of the legs and finishing off the brasswork with a couple of coats of good quality black lacquer, such as Robbialac.

If the local ironmonger cannot supply some of the items, may I remind readers that all the brass section, taps, screws, etc., may be obtained from model engineering dealers such as The Liverpool Castings & Tool Supply Co., 41, South Castle Street, Liverpool, 1, or Bonds O' Euston Road, 357, Euston Road, London, N.W.1. With regard to the timber, no doubt the local timber merchant will be able to supply something suitable from his stock if he is informed of the purpose for which it is required, but if difficulty is experienced, Frank Romany, Ltd., 52-54, High Street, Camden Town, London, N.W.1 supplies finished scantlings in first class selected cabinet makers' woods and hardwoods.

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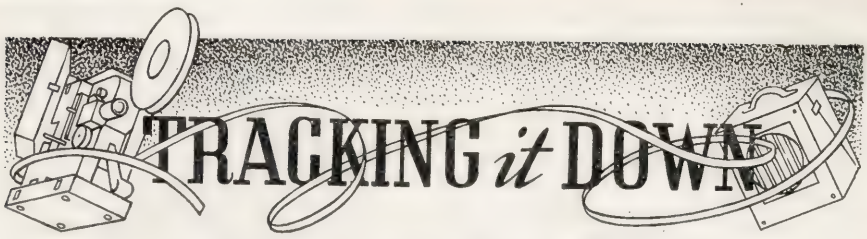

Secretary: **C. LESLIE THOMSON**

Secretary's Report

THIS quarter has brought in a good crop of enquiries, but as they have mostly been of individual interest only, I propose not to reproduce any of them here, but instead to give what might be described as "laboratory notes" on two topics of fairly wide application. These notes are restricted to essentials, but should prove full enough for most workers. Further details will gladly be supplied to inquirers who remember to enclose a stamped addressed envelope for reply! Readers will remember that notes of this kind were promised occasionally, and in the next issue we shall probably deal with more readers' queries.

Also, I am glad to report receiving very helpful and generous letters from Messrs. Philip Jenkins and D. o'C. Roe. Mr. Roe has had much experience with amateur recording and reproduction (S.O.F.) and is willing to assist others in the light of his own findings. Mr. Jenkins can advise on laboratory technique regarding sound-tracks and details of quality and dimensions: also, he is *au fait* with the characteristics of sound-heads, and their suitability for adaptation. With Mr. Jenkins' permission I give an extract from his most interesting letter:—

"Amateurs intending to convert a projector may not all realise that there are two main classes of sound-head:—(1) The 'pull-through,' in which the film is scanned before going over the lower (take-up) sprocket, which actually pulls the film through the sound-gate, and (2) the 'driven,' which scans the film after the bottom sprocket, and therefore has to have at least one sprocket as part of the sound-head.

"For the engineer-cine-enthusiast the 'driven' is undoubtedly *the* thing. It allows the motor to be an integral part of the sound-head—desirable because the sound-head is the more critical part, and the fewer intervening links between motor and sound-sprocket the better. ('Sound sprocket' is the wheel which draws the film through the scanner.) Again, a 1,440 R.P.M. motor, with really good 8.1 reduction gearing (possibly built-in) will drive an accurately-cut 8-tooth sprocket at the correct speed—24 frames per second.

"The mechanical advantage lies in the fact that the shaft of the sound-sprocket can be made far more accurately true than that of most silent machine bottom sprockets. Also, the driven type is the only possible one for projectors where there is insufficient room for a sound-head between picture-gate and lower sprocket. (E.g., the Bolex G.)

"The pull-through type can be fitted to most machines with space between the base and the lamphouse and mechanism. (E.g., the upright Bell-Howells.) As there are no driven parts in this type of sound-head, it can be made by the average cine-handyman, with results varying from good 'commercial quality' to sound that is—frankly—rotten. The chief defects are concerned with unsteady film motion, chiefly flutter, due to 'picking' and uneven pull by the take-up sprocket, and also to the intermittent motion of the film in the picture-gate continuing to some extent to the scanning-point."

Mr. Jenkins is also very concerned about damage to films by insufficiently tested conversions, and makes a justified "dig" at the amateur who, having converted an unsuitable machine, describes such damage as "wear and tear"! "One run through the average picture-gate," he continues, "can put a dickens of a scratch on a sound-track, thereby possibly ruining a new copy of a film, so far as users of first-class apparatus giving 'public' performances are concerned."

Before running a library film through your conversion, therefore, please make the test—described in these pages at least twice recently—of running a loop of unused (unexposed) film through the machine fifty to a hundred times, then examining it really honestly with a magnifying-glass for signs of wear.

Tone Control in Talkie Amplifiers Tone control is useful where one or more components in a reproducing system is deficient. In sound-on-film, and especially with the sub-standard gauges,

the limitations of recording result in an increasingly weak output towards the higher frequencies. Unless these top notes are given "preferential treatment," they tend to become lost in the general "mush," and the reproduction is accordingly less lively and intelligible.

In radio sets, the tone-control is one-sided, its function being to depress the higher frequencies, and if a talkie is dependent upon such a set for its amplifier, almost certainly the clearest reproduction will be given with the control "off." Even in amplifiers supposedly designed for talkie work there is often no means of "lifting" the treble, and this deficiency is particularly felt when using the apparatus in a hall with poor acoustics, or with an old or worn film.

It should be clearly understood that such a control can only be really effective at the cost of a certain loss in gain in the amplifier. I.e., the volume control will have to be turned higher to produce the same output. Unless the amplifier has a good margin of reserve it may be necessary to insert an extra stage to load the output stage fully.

Professionally, tone control may be achieved by means of complicated "feed-back" circuits, but these are beyond the resources of most amateurs, therefore we shall confine our attention to easily duplicated arrangements. One method depends upon a choke to "lift" the treble. This is an air-cored coil, quite similar to a transformer winding with the iron core removed.

As shown in Fig. 1, the choke is incorporated in the grid circuit of the second stage of the amplifier. It has a high impedance to treble, but not to the lower frequencies ("bass"). With the control in the "high" position the bass is virtually "shorted." As the control is moved towards "low," the choke has less effect, and the straight-line response of the resistance (R) becomes effective.

The best size of choke-coil will be determined by experiment, but the secondary winding of a "junk" intervalve transformer (removed from the iron core) will serve fairly well. The coil will, of course, pick up any stray magnetic fields in its vicinity, and must therefore be kept away from transformers or other chokes.

A rather simpler, neater, and more widely applicable arrangement is shown in Fig. 2. This resistance-capacity bridge system can give a "tip-up" to either end of the frequency scale, or a flat response, by means of a single control. The values as shown are those found by the writer to give a useful degree of control without undue loss of gain.

The switch (S) is a useful adjunct, as by closing it the bridge can be cut out, and normal gain restored. The control then acts in the "ordinary" way—reducing treble slightly as it is turned to the "low" position. This circuit can be incorporated in most amplifiers without any necessity for extra amplification, as when necessary the wide-range control can be switched off, and the full gain is immediately available. The components, too, are of small dimensions and are non-inductive, so that it is easy to find space for them in the existing chassis.

The component values are interdependent, so for a first trial it is advisable to use the actual values shown. Later one may experiment by altering the capacity of C. The higher this is, the less the loss in gain, and the less the available treble lift. (.002 to .005 is a wide enough range for most tastes.)

With either the choke or the resistance-capacity system, it is essential to keep leads short and as far as possible from other wiring to avoid risk of "pick-up."

Exciter Lamps and their Supply Where the mains supply is A.C., the simplest method is the use of a lamp with a heavy filament—similar to that of a car headlamp-bulb—fed through a step-down transformer. The filament—usually taking about 4 amperes—is so thick that it cannot cool appreciably between the peaks in the A.C. cycle. The flicker which one notices with finer filaments—e.g., a 15 watt lamp of mains voltage—is thus smoothed out to such an extent that only a quiet hum is produced with no film in the sound-gate, and with a properly "shuttered" sound track

Fig. 1

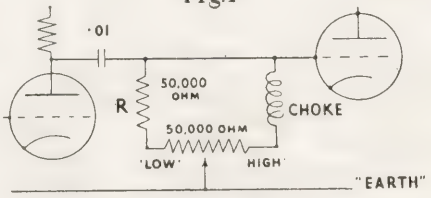

Fig. 2

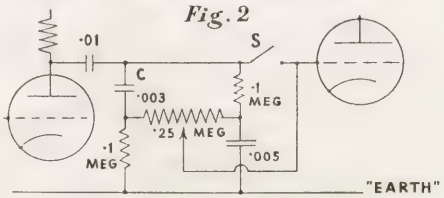

Fig. 1. Circuit employing choke to give rising response to higher frequencies.

Fig. 2. Resistance-Capacity bridge, giving predominance to bass or to treble.

Fig. 3

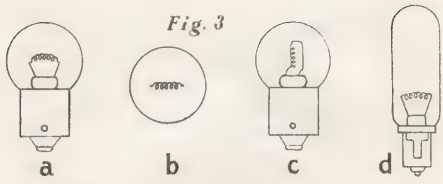

Fig. 3. Various lamps, all rated at 6 v., 3 watts, with straight-line filaments.

Fig. 4

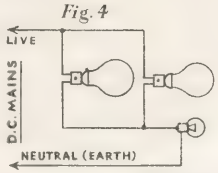

Fig. 4. Supply from D.C. mains.

no hum should be evident during reproduction. One disadvantage, especially with compact apparatus, is the very considerable amount of heat generated.

Accumulators can be used for this type of lamp, but must be of reasonably high capacity, and therefore rather clumsy, especially for transport.

For those who have D.C. mains, the problem is less simple. To provide 4 amperes at 8 volts by means of dropping resistances is most wasteful. Sometimes it is possible to wire the exciter in series with the projection lamp, which must be of the same *amperage*. (E.g., a 50 volt 200 watt lamp takes 4 amperes). In some commerical models the projector lamp itself is used for excitation, e.g., Pathe Vox, and the newer Gebescopes, but for the amateur the necessary redesign of the projector would in most cases be excessive.

However, there is another way—the use of low-wattage lamps. Ordinary A.C. cannot be used for these, but several other supply systems become available with distinct advantages of their own. Also, the lamps themselves are inexpensive. A car bulb, of the 6 volt 3 watt type, will give a good life, even when over-run at 7½-8 volts, and due to the optics of the scanning system will give practically as intense a beam as the larger filament.

It is essential that the filament should be carefully positioned, and also the filament must be of the "straight-line" variety. If one selects carefully, even the ordinary car bulb will satisfy this requirement, because although these filaments usually have a "forward" curve, from the "head-on" position they present a straight line. (Figs. 3a and 3b).

At a higher price (approx. 2/6d) there is a very useful type (Fig. 3c) made by Villiers for light motor-cycle headlamps, and available from most motor-cycle dealers. In the "de luxe" range, too, there is a lamp of the same rating—the Baby Pathe 6 volt bulb, as supplied for accumulator operation (Fig. 3d). This lamp is more accurately manufactured than the others, and is therefore preferable where rapid replacement may be required.

The supply to these small lamps can be one of three main types:—D.C., from mains or battery: Rectified current from A.C. mains: High Frequency A.C., from either A.C. or D.C. mains.

Direct Current. This is the simplest when available. A 6 volt bulb of the car or cycle type will give better results if slightly over-run, and usually an 8 volt accumulator is quite safe. The accumulator can be of reasonable dimensions, and the small glass type is quite suitable. If a variable resistance is incorporated, the full voltage can be used only when necessary, and the life of the lamp will be increased. The Pathe bulb should not be over-run, as the rated voltage gives full efficiency.

On D.C. mains, a resistance is required to pass 1/2 ampere. Ordinary house-lighting lamps can be used for this, of a wattage equal to half the mains voltage (or *slightly* over). For example, on 230 volt mains the required wattage is 115, and one could use a couple of 60 watt bulbs, wired as in Fig. 4.

Whichever supply is used, there should be no hum whatever from the exciter.

Rectified and Smoothed (from A.C. mains). The essentials are:—mains transformer, full-wave metal rectifier, and a large-capacity condenser. The transformer should have an output of 10 or 13 volts, depending on the types of rectifier used, at about ¾ of an ampere. A bell-transformer of this output (e.g., G.E.C.) is suitable. (Occasionally the various surplus stores have such transformers to offer.) Suitable rectifiers are not numerous, but a neat and efficient model (Standard Telephones) is occasionally available from M.R. Supplies, 68, New Oxford Street.

It is essential that whatever type is obtained should be of the full-wave type—not the "trickle charge" type—and that the output should be at least 9 volts at ½ ampere. In case of difficulty, the transformer and rectifier could be purchased in the form of a "car battery charger," again provided that full-wave rectification is employed therein.

The condenser is of the electrolytic type,

Fig. 5

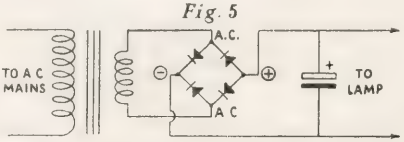

Fig. 5. Transformer, rectifier and condenser, giving rectified current from A.C.

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of 1,000 mfd. at 12 volts, working. Here also, one may have to seek patiently for one of these, but they are available.

The simplest arrangement is shown in Fig. 5, and this gives practically no hum. Those who desire to gild the lily may add a low-resistance choke and a further condenser.

High Frequency A.C. (from A.C. or D.C. mains). The most interesting method, the most "professional," and, of course, the least simple! We have noted that a thick filament smooths out the ripple in 50 cycle A.C., and in the same way a finer filament will "quieten" a higher frequency. In practice a frequency of 5,000 C/S, or higher, is used, and the resulting light is absolutely steady, and no noise is evident, either on A.C. or D.C. supply.

For our needs, the "ordinary" mains output pentode is a suitable oscillator. With normal output of 3½ watts—or more if pushed—it will comfortably feed a 3 watt bulb through a step-down transformer. The basic circuit is shown in Fig. 6. The transformer is a push-pull (or tapped primary) output type, as fitted to many moving-coil speakers. It can be purchased new for about 6/-, but second-hand specimens are fairly easy to come by. The valve can be of any suitable (and available!) type. Typical are :—4-volt British—Mazda AC2/Pen : 6.3-volt American—Brimar 42 : 26-volt "universal"—Osram KT32. All can be purchased without a G.P.O. permit.

The potentiometer P is adjusted to give the maximum output, which will probably occur with the slider nearer the "transformer" end of its travel. The condenser F is subjected to high potential, and should be of a reliable make, tested preferably to 1,000 volts.

Snags? Yes, there are one or two small points to watch. Firstly, the transformer and the lamp leads must be carefully screened, otherwise the "squeak" will find its way into the amplifier. One of the lamp leads can conveniently be earthed, and thus take the form of a screening for the other. Next, it may not be possible to supply the necessary H.T. from the amplifier without overload. In this case, a simple "universal" circuit is very satisfactory for H.T. supply—details gladly supplied to any enquirer.

Lastly, one cannot ordinarily measure the current supplied to the lamp, as simple moving-iron meters do not respond to the high frequency. A rough check can be made by directly comparing the brilliance of the lamp on a known supply—e.g., dry batteries—with that on the "squeak." On the other hand, there is some comfort in the fact that these valves cannot easily burn out a 3 watt filament, and that one can adjust the output to a comfortable minimum by means of the potentiometer.

Fig. 6

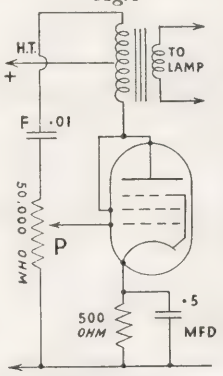

Fig. 6. High frequency oscillator.

These notes and suggestions cover a very wide field, and are necessarily very condensed. There are quite a few "loose ends," which can possibly best be dealt with by personal correspondence. Don't be shy!

Back-numbers of A.C.W. are very difficult to acquire, and one popular article recently (Oct. and Dec. 1941) was the description by R. W. Hall, B.Sc., of the conversion of a Pathe 200B. The author, in collaboration with F. G. Benson, has had the essential details reprinted in a small booklet entitled "Adapting the 200B to Sound," and selling at 3/-. The text has been re-written in a condensed form, making for easy reference, and although the photographs have been omitted, all the diagrams are reproduced. A very commendable production under existing difficulties.

I. A. C. 1942 Contest Results

"Daily Mail" and "I.A.C. Sound Film" Trophies for best Documentary: "Our Daily Bread" (John Martin).

"A.C.W." 16mm. Plaque for best fiction film in colour: "Apple a Day" (F. Marshall).

"A.C.W." 9.5/8mm. plaque for best documentary on 9.5mm.: "Landfall" (D. Shaw Ashton).

"Wallace Heaton" Trophy for best colour photography: "Evacuees in touch with Nature" (M. Moses)

"Home Movies" cup for best fiction film on monochrome: "What a Night" (F. Marshall).

Judges' Report.

9.5mm. Entries Construction and editing show advance on previous contests. Photography, although tripods in greater evidence, exposures, lighting and processing erratic.

16mm. Entries Construction and editing maintains high average standard. Photography also maintains good average standard. Workers in colour are getting to grips with material and colour treatment better than previously.

8mm. Entries Nil.

"London Films" Trophy and "I.A.C." Challenge Trophy not awarded, the former because the only film entered made by a Society did not reach trophy standard and the latter—temporarily—because of enemy action.

Your Problems Solved

FLICKER ON 200B

Unless the motor runs at nearly top speed, the flicker with my 200B seems to be very pronounced.

Can you suggest any method of overcoming this ?—*G.B.*

The best manner in which we can assist you in this problem is to outline the basic principles involved.

Kinematography is an illusion, due to the fact that a visual impression received by the eye takes a measurable period of time in which to die out. If, therefore, pictures are presented to the eye at sufficiently rapid intervals, there will be continuity of impression, and if each succeeding picture differs slightly from its predecessor there will be the illusion of movement.

It is generally accepted that the minimum frequency necessary to obtain this illusion of movement is 16 pictures per second, which is normal projection time for silent film. (The higher frequency of 24 frames per second of sound film has been necessitated by problems of sound recording and reproduction, and has no bearing on the present question.)

At this frequency, however, the eye is conscious that it is receiving a successive series of impulses or impressions, and to eliminate this a higher frequency of impressions must be super-imposed. An electric lamp burning on an A.C. circuit is a perfect example of this principle of successive impulses coalescing into a single continuous one, but in some railway stations where they generate their own current you will observe flicker, due to the lower frequency rate adopted.

The rate of what we may call "anti-flicker" frequency for cine projection is agreed to be a minimum of 48 per second, and this is achieved by so dividing or manipulating the projector shutter that for each frame projected on the screen the light is cut off three times, once during change from picture to picture, and twice during the stationary period.

Normally this is done by having three blades to the shutter, one wide and two narrow ; sometimes by running a single or twin-blade shutter at a higher rate of speed to give three alternations per picture. Sometimes, in an attempt to give a higher light output, projectors are designed to give only two alternations per frame, and in such cases the projector must never be run under

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normal speed and, if possible, above normal speed. An alternative is, of course, to fit a three-bladed shutter.

'NON-DIRECTIONAL' SILVER SCREENS

I have long needed a silver screen of the "non-directional" type and was very doubtful of the existence of a silver screen which could be claimed to be "non-directional" in practice.

Recently, however, I inspected a "non-directional" screen which gave as brilliant a picture when viewed from a side angle as when viewed from directly in front. It was of silvered fabric with minute semi-spherical embossings all over its surface which had the effect of diffusing the light in the same manner as the crystal-beaded screen—or (as I thought) better. Where can such screens be obtained?—*H.H.*

The directional effect of a silver screen is due to its strong reflectional properties, which follow normal optical laws. If the surface is broken up, either by facets or by dome-shaped embossings such as you describe, reflection will be over wider angles. Apparently the material you saw was embossed "silver" American cloth which, in our experience, is very efficient in this way.

Good non-directional qualities for their silver screens are claimed by the Perforated Screen Co., (E. G. Turner) 43-49, Higham Street, Walthamstow, E. 17, who would no doubt be glad to inform you of an agent in your vicinity.

LIGHTING MINIATURE SET

I am starting on a film, my first under artificial light, and would much appreciate your advice as to exposure. My subject is a miniature play, erected on a stage 26 inches wide by 15 inches high and having a depth of 2ft. 6 inches. I have found by experiment that the best position for two photofloods is central, just above and just below the camera, 3ft. from the front of the stage. This gives a light factor of 30, necessitating I think, an aperture of f/4 on Gevaert Pan Micro 9.5mm. I find, however, that a top-light (1 photoflood) is necessary to kill the heavy shadows cast by the wings. Will this additional light call for a smaller stop.—*J.G.B.*

You should certainly make some attempt to conduct tests. We suggest that you make an exposure (exterior, if necessary) under conditions which you know will give correct results, then do a series of "stepped" exposures of your miniature model subject. Only a few inches need be taken of each, and all the short strips can then be developed in a test tube or dish to a negative, and fixed

with hypo. You will get a negative image but, by ensuring that all strips have exactly the same developing treatment (preferably develop them all at the same time in the same bath), you can compare the densities of the test strips with the control strip, and by finding the one which most closely corresponds to the control, ascertain the best exposure.

The lighting you propose appears to be somewhat inefficient and uninteresting. Direct front lighting will flatten everything, remove all sense of modelling from your figures and sink them into the background. Do your main lighting from about 45 degrees either side, one lamp slightly farther back than the other to give uneven illumination, and therefore modelling. Use your top light also, sufficiently far away so that its power on the subject is less than that of either of the other two. Then diffuse all the lights with thin muslin or something similar. Treat the power of light, for purposes of exposure, as being equivalent to two unaided lights. Your figure of f/4 on Gevaert Pan Micro should be about right, but may be affected adversely if the film is old. That is a further reason for making careful tests.

USE OF GRADUATED FILTERS

In the A.C.W. book "Professional Quality on Amateur Reversal Film," there is a statement to the effect that the brilliance seen sometimes on the cinema screen in outdoor scenes, is achieved by the use of graduated filters. Please give some information about this.—*E.H.*

The use of ordinary filters, i.e., those of even density all over the surface, will in itself tend to impart greater brilliance and contrast to the subject, provided the correct filter is chosen. A yellow filter, or a green one, will tend to depress or make darker those portions of the subject which are of opposite or complementary colours, and this applies also to those portions which are illuminated by light of complementary colours. Thus the sky will be rendered darker and the ground look more brilliant by contrast.

Again, experience with colour film shows that a large part of the illumination in the the shadows, on days when the sky is blue, also tends to be blue, inasmuch as it is reflected from the sky. With filtration, the shadows will become darker relative to the directly illuminated parts of the subject, again increasing contrast.

The graduated filter, in theory at least, concentrates its effect on the sky passage (the yellow portion is placed upwards on the lens), but if not correctly used it has no selective effect whatever, the result given

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NOTE.—The following Civil Defence Instructional films are now available in the 16mm. silent library :—A.161 "FIRST AID" 4 reels. A.162 "INCENDIARY BOMB TRAINING" 2 reels. A.1628 "PERSONAL PROTECTION AGAINST GAS" 1 reel. A.1629 "GAS and HOME PRECAUTIONS" 1 reel. A.6161 "TEAM TRAINING OF RESCUE PARTIES" 2 reels. A.6162 "TECHNICAL TRAINING OF RESCUE PARTIES" 3 reels. Also the following Medical Instructional Films :—A.6156 "The REPRODUCTIVE SYSTEM" 1 reel. A.6157 "ARTERIES and BLOOD CIRCULATION" 1 reel. A.6158 "THE HEART" 1 reel. A.6159 "THE RESPIRATORY SYSTEM" 1 reel. A.6160 "THE DIGESTIVE TRACT" 1 reel.

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being equivalent to that obtained by a weaker filter of the same colour.

In other words, the filter must be of relatively large size and placed several inches in front of the lens. It can even take the form of a small sheet of gelatine filter of appropriate colour, supported in a frame and so disposed that it covers only the upper portion of the field of the lens to the necessary degree.

To understand why the graduated filter is useless close to the lens, look through the focussing screen of a "still" camera and pass some object of opaque character, or a piece of filter, across the front of the lens close to it. It will at once be seen that the obstructions are so completely out of focus that, in the first instance, the effect will merely be that of cutting down the aperture, while in the second case the colour of the image on the screen will progressively deepen but at any one moment will be of the same density all over the screen. In other words, the object or filter must be far enough forward to be partly in focus before even a vestige of its form can be observed and any sort of selective effect obtained.

ADHESIVE LETTERS FOR TITLING

Some years ago I purchased two founts of metal letters fitted with spikes and designed for attaching to a cork background for titling. The arrangement worked all right, but, of course, after a time, the paper background proper, which is placed on top of the cork support, is ruined and has to be replaced. To prevent this waste and also add other advantages, I have for some time contemplated cutting off the spikes on the letters and attaching the letters to a glass support over the background proper by means of an everlasting adhesive.

Which do you consider is the best method of fixing metal letters to a background : by means of spikes or an everlasting adhesive ? If the latter, can you tell me where a good reliable one can be obtained ? I don't want to remove the spikes and then find that the adhesive method is not satisfactory.—*S.D.B.*

The "permanent" adhesive method should be quite efficient. You will probably find that, when the top surface is disturbed, it is considerably more tacky beneath. You could make a trial by using small blocks of metal or wood, coating the flat side of these with the adhesive, and then disposing them on the glass surface, as you would actual title letters.

If you decide later to cut off the spikes on the letters you must bear in mind that the surface which will come into contact with the glass must be perfectly flat. You can attain this by rubbing the letters on a piece

(*Continued on page 251*)

Letter File

To The Editor, A.C.W.

Sir,—I am writing this letter in appreciation of your excellent magazine which fortunately arrives regularly from home. It is impossible to take an active part in the good which I consider the "sub-standard" will achieve, as I am at the moment in the Libyan Desert, but the A.C.W. keeps me in touch with those progressive members of the movement who are fortunate enough to be in England still. Nevertheless, I am not completely inactive, as I have now completed three scripts on which I hope to work on my return and I have formed ideas for five more films, mostly in colour.

A friend (Mr. W. Byne) and I, who work together, have been successful in receiving from you a "leader" for the last film we made jointly, before joining respectively the R.A.F. and the Army. You may remember it, "Spring Comes to Devon" (in colour). This film was made on 16mm. and 8mm. Kodachrome and was our first serious effort in colour, we were delighted with our success, and are hungry for more. I hope to make a film of Cairo before I leave these parts, and if successful, you may rely on its being submitted to you. Before I close, I should like to say that I find the new size of A.C.W. a great advantage, as I always keep each issue for future reference, and the old size made it difficult to carry about without its being torn.

I wish you and A.C.W. the best of luck for 1942. F.H.M.

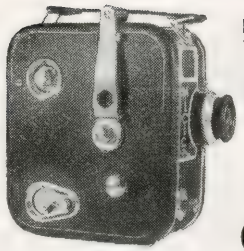
THE NON-INTERMITTENT PRINCIPLE

Sir,—Mr. Gauld ends his very interesting account of a home-made continuous (i.e., non-intermittent) viewer with a warning that the non-intermittent principle cannot be applied to sub-standard projectors.

The principle has, however, been applied to commercial 35mm. machines, one at least of which was reasonably successful. This was the Mechan, introduced in 1912. Dr. Kurt Morsbach told me shortly before he died in 1935 that one of these machines was still running in Berlin. I always understood that the mirrors of this machine were cam operated but from an incomplete description published in the I.A.C. Bulletin in 1938 (H. of Brit. Inst. of Cinematography, Vol. V, No. 5, p. 5) it appears that the mirrors received both rotary and oscillating movements.

I think it probable that the non intermittent principle could be applied to 16mm. projection, though it might very well not be worth while.

The principle has, of course, already been



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applied in the well known 16mm. slow motion camera, the optical shift in that case being obtained with a rotating plate of glass, but projection requirements are different from those of a high speed camera.

HARRY WALDEN, A.R.P.S.

CIRCULATION OF AMATEUR FILMS

Sir,—I would like to advise you of the formation in Willesden of " The Gladstone Film Unit." A short time ago the "Viewfinder Unit " (with which I am associated) was asked by the Willesden Local Youth Committee (who work under the auspices of the Middlesex County Council Education Committee and the Board of Education) to form in Willesden a film unit affiliated to Willesden Local Youth Committee. The Youth Committee already has about thirty Willesden Clubs and organisations affiliated to it, including the A.T.C., Boy Scouts Association, Girl Guides, and various other sport and social clubs, all of whom are financed and controlled by the Board of Education through the Local Committee.

One of the principal plans in the operation of " The Gladstone Film Unit," tallies with an idea to which you devoted your editorial in the January issue of *Amateur Cine World* last year, and headed " It's Up to You ! "

The scheme is this. The Viewfinder and Gladstone Film Unit will, during and after this war, be turning out quantities of films of all types and for this purpose all films produced by the Units will be made available to other societies, units and social clubs possessing the necessary standard of facilities, and distributed to them with a leader attached with the words " Associated Amateur." This is tantamount to inaugurating a film distributing organisation for the mutual benefit of both Units. We have the facilities and the assured permanent membership to distribute as well any other amateur films, with the same leader, that film societies might care to loan to us. It will be realised that these films can be distributed not only among amateur cine societies, but throughout the nation-wide youth organisation, in which respect we hope to get the co-operation of the Board of Education Film Committee.

We realise of course that any copies of their productions that societies possess at this time may be somewhat cherished, and should instances arise where a society is reluctant to loan an only copy, it is more than probable that, by making some small hire charge, as well as the necessary postage and packing charge, an additional positive could be specially made. This " fly in the ointment " is of course the only matter which will need extra careful consideration.

In the case of our own showings of amateur productions we hope to be able to persuade one of the people actively associated with each amateur production projected, to come along to the show and recall some of their experiences to the audience after they have seen the film. D. J. Olerenshaw,
Hon. Sec. Gladstone Film Unit.

LEARNING FROM MISTAKES

(*Continued from page 221*)

sequence of the same shots, but with some of them trimmed to fine limits to ensure good matching. When he had screened the film the amateur would then run it through the rewinder and compare the three versions frame by frame. Almost every aspect of shooting and assembly could be dealt with most effectively in this way. It is a job of work worth the doing. But it is a job which, for obvious reasons, cannot be handled by the trade. How about the amateur cine organisations and the individual workers? Admittedly it is not easy to do much filming these days, for stock is difficult to come by. A good deal of existing material might, however, well be used—material that should properly have been discarded as junk. Of course, it is preferable that *all* of the material, good and bad, should be taken specially for the film; but nowadays one must be content to improvise.

Here, then, is a new idea for the experienced worker. He can use on it as little or as much film as he pleases, and the planning of the production would afford him considerable interest and pleasure. Perhaps he may not get beyond the planning stage; but even to have got as far will have assisted his progress on the right road. The Editor.

YOUR PROBLEM SOLVED

(*Continued from page 248*)

of emery cloth which is supported face upwards on a flat surface (a sheet of glass is admirable), finishing on a stone. A really flat surface will adhere to another flat surface if moistened slightly.

Some few years ago a range of coloured glass letters which operated in this way, was placed on the market. The same firm, Vacusigns, Ltd., whose address then was 230, High Holborn, W.C.1., marketed a "permanent" adhesive which could also be used with the letters.

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